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Measurement Methods of Fuel Consumption for Light-Duty Vehicles
轻型汽车燃料消耗量试验方法

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Measurement Methods of Fuel Consumption for Light-Duty Vehicles

1 SCOPE

This Standard specifies the tests of fuel consumption using carbon balance method by measuring the emissions of carbon dioxide (CO₂), carbon monoxide (CO) and hydrocarbon (HC) emissions, the calculation methods, and the methods for checking and determination of conformity of production (COP).

This Standard applies to the Category N₁ vehicles with a maximum design speed ≥ 50 km/h and Category M₁ and M₂ vehicles with a maximum design total mass of up to 3,500 kg, powered by positive-ignition engine or compression-ignition engine. The Category M₁ vehicles with a maximum design total mass of exceeding 3,500 kg may use this standard as a reference.

This Standard applies to the vehicles fuelled by gasoline or diesel, but doesn't apply to hybrid electric vehicles; the vehicles of other fuel type may use this standard as a reference.

2 NORMATIVE REFERENCES

The following referenced documents are indispensable for the application of this document. For dated references, only the editions cited apply. For undated references, the latest editions of the normative document (including any amendments) apply.

GB/T 1884 Crude petroleum and liquid petroleum products – Laboratory Determination of density – Hydrometer method

GB/T 15089-2001 Classification of power-driven vehicles and trailers

GB 18352.6-2016 Limits and Measurement Methods for Emissions from Light-Duty Vehicles (China 6)

GB/T 38146.1-2019 China Automotive Test Cycle – Part 1: Light-Duty Vehicles

3 TERMS AND DEFINITIONS

For the purpose of this document, the terms and definitions established in GB/T 15089-2001, GB 18352.6-2016 and GB/T 38146.1-2019 as well as the following apply.

3.1

Gear shift indicator (GSI)

The device which is fitted on the vehicles with manual transmission and can alert the driver to shift gear in a visual manner in real time

4 GENERAL REQUIREMENTS

4.1 The vehicle manufacturer or its authorized agent shall declare the fuel consumption of the test vehicle type before the type test of fuel consumption is carried out.

4.2 The vehicle manufacturer or its authorized agent shall submit a vehicle representative of the vehicle type to be tested to the inspection agency responsible for type test. During testing, the inspection agency shall verify whether the emissions of this vehicle conform to the Type I test limit values set out in appropriate emission standard, applicable to that type.



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